Mr. Carl Muehlman
Avery Dennison MFD
650 West 67th Avenue
Schererville, Indiana 46375

Re: SSM 089-11272-00062
Significant Source Modification to
Part 70 permit No.: T089-7441-00062

Dear Mr. Muehlman:

Avery Dennison MFD was issued a Part 70 operating permit T089-7441-00062 on July 16, 1999 for a rotogravure printing and pigment and lacquer manufacturing. An application to modify the source was received on August 3, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) three-station coater packaging rotogravure printing press, identified as C-9, which has a maximum line speed of 1,500 feet per minute (ft/min), and a maximum printing width of 71 inches;

(b) One (1) eight-station coater packaging rotogravure printing press, identified as C-11, which has a maximum line speed of 1,500 ft/min, and a maximum printing width of 32 inches; and

(c) Two (2) 15.8 million British Thermal Units per hour (mmBtu/hr) thermal oxidizer, identified as C-9 and C-11. Each thermal oxidizer will control the VOC emissions from each press independently.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
APD

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office
Air Compliance Section - Rick Massoels/Ramesh Tejuja
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Avery Dennison MFD
650 West 67th Avenue
Schererville, Indiana 46375

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Significant Source Modification No.:089-11272-00062	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) three-station coater packaging rotogravure printing press, identified as C-9, which has a maximum line speed of 1,500 feet per minute (ft/min), and a maximum printing width of 71 inches;

(b) One (1) eight-station coater packaging rotogravure printing press, identified as C-11, which has a maximum line speed of 1,500 ft/min, and a maximum printing width of 32 inches and

(c) Two (2) 15.8 mmBtu/hr thermal oxidizers, identified as C-9 and C-11. Each thermal oxidizer will control the VOC emissions from each press independently.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

General Construction Conditions

D.6.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.6.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.6.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.4 Emission Offset [326 IAC 2-3] and Graphic Arts Operations [326 IAC 8-5-5]

(a) The VOC input usage, including the cleaning wash or solvent from the two (2) rotogravure printing presses, identified as C-9 and C-11, shall be limited before the control to 1,266 tons per 12 month period, rolled on a monthly basis. This limit will give an equivalent volatile organic compound (VOC) potential to emit (PTE) after control of nineteen (19) tons per 12- month period.

During the first twelve (12) months of operation, the press ink, coatings, including the cleaning wash or solvent shall be limited such that the total press ink, coatings including the cleaning wash or solvent divided by accumulated months of operation shall not exceed 105.5 tons per month before control, rolled on a monthly basis.

(b) The two (2) thermal oxidizers, C-9 and C-11, shall be operated at all times the proposed two (2) rotogravure printing presses, are in operation.

(c) The operating temperature of each thermal oxidizer, identified as C-9 and C-11, shall be maintained at or above the minimums established during the compliance stack tests that will achieve an overall control of 98.5%.

(d) Compliance with (a), (b) and (c) of this condition will make VOC emissions not to exceed 19 tons per twelve-month and therefore, makes 326 IAC 2-3 Emission Offset Rules not applicable. It also satisfies and exceeds the overall control efficiency requirements in 326 IAC 8-5-5 for Graphic Arts Operations, and the Printing and Publishing NESHAP, 40 CFR 63, Subpart KK.

D.6.5 Compliance Certification, Record Keeping and Reporting Requirements for Certain Coating Facilities Using Control Devices [326 IAC 8-1-12]

326 IAC 8-1-12 applies only to facilities that use control devices to comply with 326 IAC 8-5-5.

(a) The two (2) thermal oxidizers, C-9 and C-11 shall be operated and maintained according to the manufacturer's recommendations but may be modified based on the results of the initial or subsequent compliance test or upon the written request of IDEM, OAM.

(b) A copy of the operating and maintenance procedures shall be maintained in a convenient location at the source property and as close to each control system as possible for reference by plant personnel and IDEM, OAM inspectors.

D.6.6 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart KK.

D.6.7 Printing and Publishing Industry NESHAP [326 IAC 20-18-1] [40 CFR 63, Subpart KK]

This facility is subject to 40 CFR 63, Subpart KK, which is incorporated by reference as 326 IAC 20-18-1. A copy of the rule was attached in the issued Title V permit. The Permittee shall comply with all applicable provisions of this rule on and after May 30, 1999. The overall control efficiency of 98.5% for each oxidizer required to operate presses C-9 and C-11, to stay below the Emissions Offset Significant level for VOC, satisfies the overall efficiency of 95% requirements under this NESHAP.

(a) The two (2) packaging rotogravure printing presses, C-9 and C-11, shall limit emissions to no more than five (5) percent of the organic HAP applied for the month.

(b) The Permittee shall demonstrate compliance with this standard by operating capture systems and control devices and demonstrating an overall organic HAP control efficiency of at least ninety-five percent (95%) for each month. The Permittee shall show compliance by demonstrating:

(1) Initial compliance through performance tests of capture efficiency and control device efficiency following the procedures in Condition D.6.11 and

(2) Continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures in Condition D.6.13

(c) The facility is in compliance with the ninety-five percent (95%) overall organic HAP control efficiency requirement for the month if for each press or group of presses controlled by a common control device:

(1) The overall organic HAP control efficiency as determined by the procedures in Condition D.6.11 for each press or group of presses served by that control device and a common capture system is equal to or greater than ninety-five percent (95%);

(2) The oxidizers are operated such that the average combustion temperature is greater than the minimum combustion temperature established in accordance with the provisions of Condition D.6.14 for each three (3) hour period; and

(3) The average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with the provisions of Condition D.6.14 for each three (3) hour period.

D.6.8 Graphic Arts Operations 326 IAC 8-5-5

Pursuant to 326 IAC 8-5-5 (Graphic Arts Operations), the Permittee shall operate an incineration system that oxidizes at least ninety percent (90%) of the nonmethane volatile organic compounds (volatile organic compounds measured as total combustible carbon) to carbon dioxide and water. Also, the Permittee shall attain an efficiency sufficient to achieve an overall control efficiency, in conjunction with the emission control system of sixty-five percent (65%). The overall control efficiency of 98.5% required to operate presses C-9 and C-11, to stay below the Emissions Offset Significant level for VOC, satisfies the overall efficiency of 65% requirements under this rule.

D.6.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for presses C-9 and C-11, and their respective thermal oxidizer.

D.6.10 Startup, Shutdown, and Malfunction Plan [326 IAC 20-18-1] [40 CFR 63.6(e)(3) General Provisions]

Pursuant to the Printing and Publishing Industry NESHAP, the Permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the facility during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with 40 CFR 63, Subpart KK. As required under 40 CFR 63.8(c)(1)(i) (General Provisions), the plan shall identify all routine or otherwise predictable continuous monitoring system (CMS) malfunctions. This plan shall be developed by the Permittee by the facility's compliance date, May 30, 1999. The plan shall be incorporated by reference into the source's Part 70 permit.

(a) The purpose of the SSM plan is to –

(1) Ensure that, at all times, the Permittee operates and maintains the facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the level required by the rule;

(2) Ensure that the Permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of HAP; and

(3) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(b) During periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain the facility (including associated air pollution control equipment) in accordance with the procedures specified in the SSM plan developed under this condition.

(c) Recordkeeping associated with the SSM plan is identified in Condition D.6.16. Reporting associated with the SSM plan is identified in Condition D.6.18.

(d) The Permittee shall keep the written SSM plan on record after it is developed to be made available for inspection, upon request, by IDEM, OAM for the life of the facility or until the facility is no longer subject to this rule. In addition, if the SSM plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the SSM plan on record, to be made available for inspection, upon request, by IDEM, OAM, for a period of 5 years after each revision to the plan. Revisions to the SSM plan are automatically incorporated by reference and do not require a permit revision.

(e) To satisfy the requirements of this condition, the Permittee may use the facility's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this condition and are made available for inspection when requested by IDEM, OAM.

(f) IDEM, OAM shall determine whether acceptable operation and maintenance procedures are being used, based on information available to IDEM, OAM, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the SSM plan required in this condition), review of operation and maintenance records, and inspection of the facility.

Based on the results of such determination, IDEM, OAM may require that the Permittee make changes to the SSM plan for the facility. IDEM, OAM may require reasonable revisions to a SSM plan, if IDEM, OAM finds that the plan:

(1) Does not address a startup, shutdown, or malfunction event that has occurred;

(2) Fails to provide for the operation of the facility (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

(3) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(g) If the SSM plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSM plan at the time the Permittee developed the plan, the Permittee shall revise the SSM plan within forty-five (45) days after the event to include detailed procedures for operating and maintaining the facility during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.

Compliance Determination Requirements

D.6.11 Testing Requirements [326 IAC 8-1-12]

Pursuant to 326 IAC 8-1-12, each incineration control system shall be tested according to the following schedule and in the following situations:

(a) Compliance tests shall be conducted no later than every thirty (30) months after the date of the initial test required when the control system became subject to this rule.

(b) A compliance test shall be conducted whenever the Permittee chooses to operate a control system under conditions different from those that were in place at the time of the previous test.

(c) A compliance test shall be performed within ninety (90) days of:

(1) Startup of a new coating facility ;

(2) Changing the method of compliance for an existing coating facility from compliance coatings or daily-weighted averaging to control devices; or

(3) Receipt of a written request from IDEM, OAM or U.S. EPA.

(d) All compliance tests shall be conducted according to a protocol approved by IDEM, OAM at least thirty (30) days before the test. The protocol shall contain, at a minimum, the following information:

(1) Test procedures.

(2) Operating and control system parameters.

(3) Type of VOC containing process material being used.

(4) The process and control system parameters that will be monitored during the test.

(e) All compliance tests shall be conducted according to a protocol approved by IDEM, OAM at least thirty (30) days before the test. The protocol shall contain, at a minimum, the following information:

(1) Test procedures.

(2) Operating and control system parameters.

(3) Type of VOC containing process material being used.

(4) The process and control system parameters that will be monitored during the test.

D.6.12 Testing Requirements [326 IAC 20-18-1] [40 CFR 63.827]

Pursuant to the Printing and Publishing Industry NESHAP, and 326 IAC 8-5-5 (Graphic Arts Operations), initial compliance with the ninety-five percent (95%) overall organic HAP control efficiency requirement in Condition D.6.7 and the sixty-five (65%) overall VOC control efficiency requirement in D.6.8 shall be demonstrated for the two (2) thermal oxidizers within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The overall control efficiency of 98.5% required to operate the thermal oxidizers and presses C-9 and C-11, to stay below the Emissions Offset Significant level for VOC, which satisfies the overall efficiency of 95% required under this NESHAP, and the 65% required under 326 IAC 8-5-5, shall be the level of efficiency for which thermal oxidizers C-9 and C-11 shall be operated and tested for, and the testing shall be in accordance with the following:

(a) Determine the oxidizer destruction efficiency (E) using the following procedure:

(1) An initial performance test to establish the destruction efficiency and the associated combustion zone temperature for each oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(i) Method 1 or 1A of 40 CFR 60, Appendix A is used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, or 2D of 40 CFR 60, Appendix A is used to determine gas volumetric flow rate.

(iii) Method 3 of 40 CFR 60, Appendix A is used for gas analysis to determine dry molecular weight.

(iv) Method 4 of 40 CFR 60, Appendix A is used to determine stack gas moisture.

(v) Methods 2, 2A, 3, and 4 of 40 CFR 60, Appendix A shall be performed, as applicable, at least twice during each test period.

(vi) Method 25 of 40 CFR 60, Appendix A, shall be used to determine organic volatile matter concentration, except as provided in (A) through (C) below. The Permittee shall submit notice of the intended test method to IDEM, OAM for approval along with notice of performance test required under 40 CFR 63.7(c) (General Provisions). The Permittee may use Method 25A of 40 CFR 60, Appendix A, if:

(A) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with Condition D.6.7, or

(B) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(C) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(vii) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(viii) Organic volatile matter mass flow rates shall be determined using the following equation:

$$M_f = Q_{sd} \left[\sum_{i=1}^{n} C_i M W_i \right] [0.0416] [10^{-6}]$$

where the symbols of this equation are defined in 40 CFR 63.822 (Definitions) of the rule attached to the issued Title V permit.

(ix) Emission control device efficiency shall be determined using the following equation:

$$E = [M_{fi} - M_{fo}] / M_{fi}$$

(2) The Permittee shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. The Permittee shall establish as the operating parameter the minimum combustion temperature. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of Condition D.6.7.

(b) Determine the capture system capture efficiency (F) of each capture system venting organic emissions to a control device for the purposes of meeting the requirements of Condition D.6.7 by conducting a performance test. For permanent total enclosures, capture efficiency shall be assumed as 100 percent. Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in 40 CFR 52.741, Appendix B shall be used to confirm that an enclosure meets the requirements for permanent total enclosure.

(c) Calculate the overall organic HAP control efficiency, (R), achieved using the following equation:

R = EF / 100

where E and F are determined according to paragraphs (a) and (b) of this condition.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.13 Monitoring Requirements [326 IAC 8-1-12]

Pursuant to 326 IAC 8-1-12, a temperature monitoring device capable of continuously recording the temperature of the gas stream in the combustion zone of each incinerator shall be used. The temperature monitoring device shall have an accuracy of one percent (1%) of the temperature being measured in degrees Centigrade, or plus or minus five-tenths degree Centigrade (± 0.5 °C), whichever is more accurate.

D.6.14 Monitoring Requirements [326 IAC 20-18-1] [40 CFR 63.828]

Pursuant to the Printing and Publishing Industry NESHAP, following the date on which the initial performance tests of C-9 and C-11 thermal oxidizers are completed, to demonstrate continuing compliance with the standard, the Permittee shall monitor and inspect each thermal oxidizer required to comply with Condition D.6.7 to ensure proper operation and maintenance by implementing the following requirements:

(a) For the oxidizers, the Permittee shall install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±1 °C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(b) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers' specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the Permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

(c) To demonstrate continuous compliance by monitoring an operating parameter to ensure that the capture efficiency measured during the initial compliance test is maintained, the Permittee shall:

(1) Submit to IDEM, OAM with the compliance status report required in Condition D.6.18(b), a plan that:

(i) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;

(ii) Discusses why this parameter is appropriate for demonstrating ongoing compliance; and

(iii) Identifies the specific monitoring procedures.

(2) Set the operating parameter value, or range of values, that demonstrate compliance with Condition D.6.7; and

(3) Conduct monitoring in accordance with the plan submitted to IDEM, OAM unless comments received from IDEM, OAM require an alternate monitoring scheme.

(d) Any excursion from the required operating parameters that are monitored in accordance with this condition, unless otherwise excused, shall be considered a violation of Condition D.6.7.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.15 Record Keeping Requirements [326 IAC 8-1-12]

Pursuant to 326 IAC 8-1-12, the Permittee shall collect and record each day for each coating facility:

(a) The name and identification of each coating used at each coating facility.

(b) The mass of VOC per unit volume of coating solids, as applied, the volume solids content, as applied, and the volume, as applied, of each coating expressed in units necessary to determine compliance, used each day at each coating facility.

(c) The maximum VOC content (mass of VOC per unit volume of coating solids, as applied) or the daily weighted average VOC content (mass of VOC per unit volume of coating solids, as applied) of the coatings used each day on each coating facility.

(d) The required overall emission reduction efficiency for each day for each coating facility.

(e) The actual overall emission reduction efficiency achieved for each day for each coating facility as determined during the compliance test required by Condition D.6.11.

(f) Control device monitoring data as follows:

(1) Continuous records of the temperature in the gas stream in the combustion zone of each incinerator.

(2) Records of all three (3) hour periods of operation in which the average combustion temperature of the gas stream in each combustion zone was more than fifty degrees Fahrenheit (50 °F) (twenty-eight degrees Centigrade (28 °C)) below the average combustion temperature that existed during the most recent test that demonstrated that the coating facility was in compliance.

(g) A log of operating time for each capture system, control device, monitoring equipment, and the associated coating facility.

(h) A maintenance log for each capture system, control device, and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

(i) The records required in paragraphs (a) through (h) of this condition shall be maintained in accordance with the requirements of Condition C.20 of the issued Part 70 permit and 326 IAC 8-1-9(c).

D.6.16 Record Keeping Requirements [326 IAC 20-18-1] [40 CFR 63.829]

(a) Pursuant to the Printing and Publishing Industry NESHAP, the Permittee shall maintain the following records on a monthly basis:

(1) Records of all measurements needed to demonstrate compliance with Condition D.6.7. These records shall include at a minimum the following specified in 40 CFR 63.10(b)(2) (General Provisions) that are applicable:

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the air pollution control equipment;

(iii) All maintenance performed on the air pollution control equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSM plan required by Condition D.6.10;

(v) All information necessary to demonstrate conformance with the SSM plan required in Condition D.6.10 when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the SSM plan may be recorded using a “checklist”, or some other effective form or recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with Condition D.6.7 (including, but not limited to, 15-minute averages of

CMS data, raw performance testing measurements, raw performance evaluation measurements, and control device and capture system operating parameter data, that support data that the source is required to report);

(viii) All results of performance tests and CMS performance evaluations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) All documentation supporting initial notifications of compliance status under 40 CFR 63.9 (General Provisions).

(2) Records for each applicability determination performed by the Permittee in accordance with the requirements of 40 CFR 63.820(a) of this rule. The records and conditions for recordkeeping are specified in 40 CFR 63.10(b)(3) (General Provisions) and are as follows:

(i) If the Permittee determines that their stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to 40 CFR 63, Subpart KK, the Permittee shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first.

(ii) The record of the applicability determination shall include an analysis (or other information) that demonstrates why the Permittee believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow IDEM, OAM to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

(iii) If relevant, the analysis shall be performed in accordance with requirements established in this rule for this purpose. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Federal Clean Air Act, if any.

(3) Records for each CMS operated by the Permittee in accordance with the requirements of Condition D.6.14. These records are in addition to complying with the requirements specified in paragraph (a)(1) of this condition, and shall include at a minimum the following specified in 40 CFR 63.10(c) (General Provisions) that are applicable:

(i) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(ii) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(iii) The date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7) (General Provisions);

(iv) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the rule, that occurs during startups, shutdowns, and malfunctions of the facility;

(v) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the rule, that occurs during periods other than startups, shutdowns, and malfunctions of the facility;

(vi) The nature and cause of any malfunction (if known);

(vii) The corrective action taken or preventive measures adopted;

(viii) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(ix) The total process operating time during the reporting period; and

(x) All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR 63.8(d) (General Provisions).

(xi) In order to satisfy the requirements of paragraphs (vi) through (viii) of this condition and to avoid duplicative recordkeeping efforts, the Permittee may use the SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan specified in Condition D.6.16, provided that such plan and records adequately address the requirements of paragraphs (vi) through (viii) of this condition.

(b) The records required in paragraph (a) of this condition shall be maintained in accordance with the following requirements of 40 CFR 63.10(b)(1) (General Provisions):

(1) The Permittee shall maintain files of all information (including all reports and notifications) required by this rule recorded in a form suitable and readily available for expeditious inspection and review.

(2) The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site.

(3) Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

D.6.17 Reporting Requirements [326 IAC 8-1-12]

Pursuant to 326 IAC 8-1-12, the Permittee shall notify IDEM, OAM in either of the following instances:

(a) Any record showing noncompliance with the applicable requirements for control devices shall be reported by submitting a copy of the record to IDEM, OAM within thirty (30) days following noncompliance; such record shall also be submitted with the quarterly compliance monitoring report attached to this permit. The following information shall accompany each submittal:

(1) Name and location of the coating facility.

(2) Identification of the control system where the noncompliance occurred and the coating facility it served.

(3) Time, date and duration of the noncompliance.

(4) Corrective action taken.

(b) At least thirty (30) calendar days before changing the method of compliance from control devices to the use of compliant coatings or daily-weighted averaging, the Permittee shall comply with all applicable requirements of 326 IAC 8-1-10(b) or 8-1-11(b), respectively. Upon changing the method of compliance from control devices to the use of compliant coatings or daily-weighted averaging, the Permittee shall comply with all requirements of 326 IAC 8-1-10(b) or 8-1-11(b), respectively, applicable to the coating facility subject to 326 IAC 8-5-5.

D.6.18 Reporting Requirements [326 IAC 20-18-1] [40 CFR 63.830]

Pursuant to the Printing and Publishing Industry NESHAP, the Permittee shall submit the reports and plans listed below to the following addresses:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(a) A Notification of Performance Tests specified in 40 CFR 63.7 and 63.9(e) (General Provisions). This notification, and the site-specific test plan required under 40 CFR 63.7(c)(2) (General Provisions) shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. The operating parameter identified in the site-specific test plan shall be considered to be approved unless explicitly disapproved, or unless comments received from IDEM, OAM require monitoring of an alternate parameter.

(b) A Notification of Compliance Status specified in 40 CFR 63.9(h) (General Provisions).

(c) Performance test reports specified in 40 CFR 63.10(d)(2) (General Provisions).

(d) Start-up, shutdown and malfunction (SSM) reports specified in 40 CFR 63.10(d)(5) (General Provisions).

(i) If actions taken by the Permittee during a start-up, shutdown, or malfunction of the facility (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the facility's SSM plan specified in Condition D.6.10, the Permittee shall report the actions taken for that event in strict accordance with 40 CFR 63.10(d)(5)(ii), i.e., within two (2) working days after commencing actions inconsistent with the plan, followed by a letter within seven (7) working days after the end of the event. The SSM report shall consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy; shall be submitted to IDEM, OAM; and shall otherwise comply with the provisions of 40 CFR 63.10(d)(5)(ii).

(ii) Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in paragraph (e) of this condition.

(e) A summary report specified in 40 CFR 63.10(e)(3) (General Provisions) shall be submitted on a semi-annual basis (i.e., once every six-month period). In addition to a report of operating parameter exceedances as required by 40 CFR 63.10(e)(3)(i) (General Provisions), the summary report shall include exceedances of the standard in Condition D.6.7.

(f) The monitoring plan required in Condition D.6.14(c), to ensure continuous capture efficiency compliance, submitted with the compliance status report required in paragraph (b) of this condition.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA Part 70 Significant Source Modification Quarterly Report

Source Name: Avery Dennison MFD
Source Address: 650 West 67th Avenue, Schererville, Indiana
Mailing Address: 650 West 67th Avenue, Schererville, Indiana
Source Modification No.: 089-11272-00062
Facility: Two (2) rotogravure printing presses, C-9 and C-11
Parameter: Volatile Organic Compounds (VOC)
Limit before control: 1,266 tons/12-month period, rolled on a monthly basis

YEAR: _____

	Month 1			Month 2			Month 3		
Facility	This Month, Input VOC Usage Before Control	Previous 11 Months Input VOC Usage Before Control	12 Month Total Input VOC Usage Before Control	This Month, Input VOC Usage Before Control	Previous 11 Months Input VOC Usage Before Control	12 Month Total Input VOC Usage Before Control	This Month, Input VOC Usage Before Control	Previous 11 Months Input VOC Usage Before Control	12 Month Total Input VOC Usage Before Control
Press C-9									
Press C-11									

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Avery Dennison MFD
Source Address: 650 West 67th Avenue, Schererville, Indiana
Mailing Address: 650 West 67th Avenue, Schererville, Indiana
Source Modification No.: 089-11272-00062

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Part 70 Significant Source Modification

Source Background and Description

Source Name:	Avery Dennison MFD
Source Location:	650 West 67th Avenue, Schererville, Indiana
County:	Lake
SIC Code:	2754, 2816, 2851
Operation Permit No.:	T 089-7441-00062
Operation Permit Issuance Date:	July 16, 1999
Significant Source Modification No.:	089-11272-00062
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed a modification application from Avery Dennison MFD, relating to the construction of the following emission units and pollution control device:

(a) One (1) three-station coater packaging rotogravure printing press, identified as C-9, which has a maximum line speed of 1,500 feet per minute (ft/min), and a maximum printing width of 71 inches;

(b) One (1) eight-station coater packaging rotogravure printing press, identified as C-11, which has a maximum line speed of 1,500 ft/min, and a maximum printing width of 32 inches and

(c) One (1) 11.2 million British Thermal Units per hour (mmBtu/hr) thermal oxidizer, identified as C-9/C-11 T-Ox. This oxidizer will control the VOC emissions from press C-9 and press C-11.

History

On August 3, 1999, Avery Dennison MFD submitted an application to the OAM requesting to add additional rotogravure printing presses to their existing plant. Avery Dennison MFD was issued a Part 70 permit on July 16, 1999.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
C-9	Rotogravure presses C-9 and C-11 thermal oxidizer	36	3	40,000	800

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 23, 1999. Additional information was received on September 29, 1999, and October 4, 1999.

Emission Calculations

(a) Printing Presses Emissions: See page 1 of 2 TSD App A for detailed emission calculations.

(b) Thermal Oxidizer Natural Gas Combustion Emissions: See page 2 of 2 TSD App A for detailed emission calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.1
PM-10	0.4
SO_2	0.0
VOC	4,997.85
CO	4.1
NO_x	4.9

HAP's	Potential To Emit (tons/year)
Methyl Ethyl Ketone	530.28
Methyl Isobutyl Ketone	2,044.83
Toluene	19.36
TOTAL	2,594.47

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification, 326 IAC 2-7-10.5(f). Although, the source has a catalytic oxidizer to control the VOC emissions, it cannot use the VOC control equipment to limit out of the Significant Source Modification.

Pursuant to 326 IAC 2-7-10.5(d)(5), Minor Source Modification, the source can limit their VOC, single HAP and combined HAPs emissions below the thresholds for a Significant Source Modification by complying with one (1) of the following:

(a) Limiting total annual solvent usage or maximum volatile organic compound content, or both.
(b) Limiting annual hours of operation of the process or business.

This section does not cite that a source can use a VOC control to limit the source out of the Significant Source Modification.

County Attainment Status

The source is located in Lake County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	Moderate Nonattainment
SO_2	Nonattainment
NO_2	Severe
Ozone	Severe
CO	Nonattainment- Part of City of E. Chicago (area bounded by Columbus Dr. on the north, the IN Harbor Canal on the west, 148th St. if extended, on the south, and Euclid Ave., on the east. The part where the source is located is attainment.
Lead	Not determined

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Lake County has been classified as nonattainment for PM10 and SO2. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(c) The portion of Lake County where the source is located has been classified as attainment for CO. Therefore, this emission was reviewed pursuant to the requirements for the Prevention of Significant Deterioration, 326 IAC 2-2.

Source Status

Existing Source PSD or Emission Offset Definition (based on the PSD or Emission Offset determination in CP 089-3522-00062, issued on August 11, 1995. No modification has occurred until this Significant Source Modification):

Pollutant	Emissions (tons/year)
PM	0.0
PM-10	0.0
SO_2	0.0
VOC	422
CO	0.0
NOx	0.0

(a) This existing source is not a major stationary source for PM, PM10, and SO_2 because these nonattainment pollutants are not emitted at a rate of 100 tons per year or more.

(b) This existing source is a major source for ozone and NOx, because ozone is emitted at a rate of 25 tons per year or more.

(c) This existing source is not major source for CO, because it is not emitted at a PSD significant level of 100 tons per year or more.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)					
Process/facility	PM	PM-10	SO_2	VOC	NOx	CO
Proposed Modification	0.0	0.0	0.0	19.0	0.0	0.0

Contemporaneous Increases	-	-	-	2.97	-	-
Contemporaneous Decreases	-	-	-	-	-	-
Net Emissions Increase	0.0	0.0	0.0	21.97	0.0	0.0
VOC or NOx Deminimis Levels	-	-	-	Ý25	Ý25	-
Offset Threshold Levels and Significant Levels	100	100	100	25	25	-
PSD Significant Level	-	-	-	-	-	100

(a) This modification to an existing major stationary source is not major for PM, PM10, and SO2 because the emissions increases are less than the Emission Offset threshold levels, or there are no emissions increases. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

(b) This modification to an existing major stationary source is not major for VOC and NOx because the emissions increases are less than the Emission Offset Significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

(c) This modification to an existing major stationary source for VOC and NOx is not major for CO, because the CO emission increases are less than the PSD significant level, or there are no emission increases. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability - Entire Source

(a) 326 IAC 12, (40 CFR 60.430, Subpart QQ - Standards of Performance for the Graphic Arts Industry, Publication Rotogravure Printing:
The proposed two (2) packaging rotogravure printing press, identified as C-9 and C-11 are **not** subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.430, Subpart QQ), because they are packaging rotogravure printing presses and not publication rotogravure printing presses.

(b) 40 CFR 63.820, Subpart KK - National Emission Standards for the Printing and Publishing Industry:
This NESHAP applies to each new and existing facility that is a major source of hazardous air pollutants (HAP), at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated.

The proposed two (2) packaging rotogravure printing press, identified as C-9 and C-11 are subject to this NESHAP.

(1) The Permittee shall comply with these requirements on and after May 30, 1999.

(2) Packaging rotogravure printing presses, C-9 and C-11 shall each limit emissions to no more than five percent of the organic HAP applied for the month; or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners and other materials applied for the month; or to no more than 20 percent of the mass of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids

contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month. The Permittee shall demonstrate compliance with this standard by the following:

(a) Operate a capture system and control device and demonstrate an overall organic HAP efficiency of at least 95 percent for each month as determined by the following:

(1) Determine the oxidizer destruction efficiency (E) using the following procedure:

(i) A performance test of a control device to determine destruction efficiency for the purpose of meeting the requirements of §§ 63.824-63.825 shall be conducted by the Permittee in accordance with the following:

(A) An initial performance test to establish the destruction efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(1) Method 1 of 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(2) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(3) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

(4) Method 4 of 40 CFR part 60, appendix A is used to determine stack gas moisture.

(5) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(6) Method 25 of 40 CFR part 60, appendix A, shall be used to determine organic volatile matter concentration, except as provided in the following paragraphs. The Permittee shall submit notice of the intended test method for approval along with notice of the performance test required under § 63.7(c). The Permittee may use Method 25A of 40 CFR part 60, appendix A, if

(I) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards of §§ 63.827-63.825, or

(II) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(III) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(7) Each performance test shall consist of three separate runs; each conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions . For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply,

(8) Organic volatile matter mass flow rates shall be determined using the following equation:

$$M_f = Q_{sd} \left[\sum_{i=1}^{n} C_i MW_i \right] [0.0416] [10^{-6}]$$

Where:
M_f = the total organic volatile matter mass flow rate, kg/hr

Q_{sd} = the volumetric flow rate of gases entering or exiting the control device, as determined by Method 2, dscm/hr

C_i = the organic volatile matter concentration in ppm, dry basis of compound i in the vent gas, as determined by Method 25 or Method 25A

MW_i = the molecular weight of compound i in the vent gas, kg/kg-mol

(9) Emission control device efficiency shall be determined using the following equation:

$E = [M_{fi} - M_{fo}] / M_{fi}$

Where:
E = the organic volatile matter control efficiency of the control device, percent

M_{fi} = the total organic volatile matter mass flow rate at the inlet to the control device, kg/hr

M_{fo} = the total organic volatile matter mass flow rate at the outlet of the control device, kg/hr

(B) The Permittee shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(C) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the valued recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the Permittee shall establish as the operating parameter the minimum combustion temperature. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of §§ 63.824-63.825.

(2) Determine the capture system capture efficiency (F) in accordance with the following procedure:

(i) A performance test to determine the capture efficiency of each capture system venting organic emission to a control device for the purpose of meeting the requirements of §§ 63.825(d)(1) shall be conducted by the Permittee in accordance with the following:

(A) For permanent total enclosures, capture

efficiency shall be assumed as 100 percent. Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in appendix B to § 52.741 of part 52 of this chapter shall be used to confirm that an enclosure meets the requirements for permanent total enclosure.

(3) Calculate the overall organic HAP control efficiency, (R), achieved using the following equation:

R = EF / 100

(4) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with § 63.828(a)(4)-(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(3) The affected source is in compliance with the 95 percent overall organic HAP control efficiency requirement for the month if for each press or group of presses controlled by a common control device:

(a) The overall organic HAP control efficiency as determined by the following paragraphs for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent, the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three hour period, and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period.

(1) Pursuant to § 63.828(a)(4) and (a)(5):

(i) A Permittee complying with the requirements of §§ 63.824-63.825 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(A) For an oxidizer, other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder.

The device shall have an accuracy of ±1 percent of the temperature being monitored in ^{o}C or ±1 ^{o}C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(ii) A Permittee complying with the requirements of §§ 63.824-63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter to ensure that the capture efficiency measured during the initial compliance test is maintained, shall:

(A) Submit with the compliance status report required by § 63.9(h) of the General Provisions, a plan that

(I) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance is maintained,

(II) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

(III) Identifies the specific monitoring

procedures;

(B) Set the operating parameter value, or range of values, that demonstrate compliance with §§ 63.824-63.825, and

(C) Conduct monitoring in accordance with the plan submitted unless comments received from U.S. EPA or IDEM, OAM require an alternate monitoring scheme.

(4) The compliance date for a Permittee of an existing affected source subject to the provisions of this subpart is May 30, 1999.

(5) Any excursion from the required operating parameters which are monitored in accordance with § 63.828 (a)(4) and (a)(5), unless otherwise excused, shall be considered a violation of the emission standard.

(6) The record keeping provisions of 40 CFR part 63 subpart A of this part that applied and those that do not apply to Permittees of affected sources subject to this subpart are listed in Table 1 of this subpart.

(7) Each Permittee of an affected source subject to this subpart shall maintain the records specified in the following paragraphs on a monthly basis in accordance with the requirements of § 63.10(b)(1) of this part:

(a) Records specified in § 63.10(b)(2) of this part, of all measurements needed to demonstrate compliance with this standard, such as continuous emission monitor data, control device and capture system operating parameter data, material usage, HAP usage, volatile matter usage, and solids usage that support data that the source is required to report.

(b) Records specified in § 63.10(b)(3) of this part for each applicability determination performed by the Permittee in accordance with the requirements of § 63.820(a) of this subpart, and

(c) Records specified in § 63.10(c) of this part for each continuous monitoring system operated by the Permittee in accordance with the requirements of § 63.828(a) of this subpart.

(8) The reporting provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to Permittees of affected sources subject to this subpart are listed in Table 1 of this subpart.

(9) Each Permittee of an affected source subject to this subpart shall submit the reports specified in the following paragraphs:

(a) An initial notification required in § 63.9(b).

(1) Initial notifications for existing sources shall be submitted no later than one year before the compliance date specified in § 63.826(a).

(2) Initial notifications for new and reconstructed source shall be submitted as required by § 63.9(b).

(3) For the purpose of this subpart, a Title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA.

(4) Permit applications shall be submitted by the same due dates as those specified for the initial notifications.

Since the source submitted the Part 70 Permit Application on December 10, 1996, the requirements of the initial notification has been satisfied.

(b) A Notification of Performance Tests specified in § 63.7 and § 63.9(e) if this part. This notification, and the site-specific test plan required under § 63.7(c)(2) shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. The operating parameter identified in the site-specific test plan shall be considered to be approved unless explicitly disapproved, or unless comments received from the Administrator require monitoring of an alternative parameter.

(c) A Notification of Compliance Status specified in § 63.9(h) of this part.

(d) Performance test reports specified in § 63.10(d)(2) of this part.

(e) Start-up, shutdown, and malfunction reports specified in § 63.10(d)(5) of this part, except that the provisions in subpart A pertaining to start-ups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.

(1) If actions taken by a Permittee during a start-up, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the procedure specified in the source's start-up, shutdown, and malfunction plant specified in § 63.6(e)(3) of this part, the Permittee shall state such information on the report. The start-up, shutdown, or malfunction report shall consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Administrator.

(2) Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report.

(f) A summary report specified in § 63.10(e)(3) of this part shall be submitted on a semi-annual basis (i.e., once every six-month period). In addition to a report of operating parameter exceedances as required by § 63.10(e)(3)(i), the summary report shall include, as applicable:

(1) Exceedances of the standards in §§ 63.824-63.825.

(2) Exceedances of either of the criteria of § 63.820(a)(2).

(3) Exceedances of the criterion of § 63.821(b)(1) and the criterion of § 63.821(b)(2) in the same month.

(4) Exceedances of the criterion of § 63.821(a)(2)(ii)(A).

(10) In delegating implementation and enforcement authority to a State under 40 CFR part 63 subpart E of this part, the authorities contained in paragraph (b) of this section shall be retained by the U.S. EPA and not transferred to IDEM, OAM.

(11) Authority which will not be delegated to IDEM, OAM: § 63.827(b), approval of alternate test method for organic HAP content determination; § 63.827(c), approval of alternate test method for volatile matter determination.

The overall control efficiency of 98.5% required to operate presses C-9 and C-11, to stay below the Emissions Offset Significant level for VOC, satisfies the overall efficiency of 95% requirements under this rule.

State Rule Applicability -

(a) 326 IAC 1-6-3 (Preventive Maintenance Plan)
Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plan), the source is required to maintain a Preventive Maintenance Plan (PMP) for the proposed two (2) packaging rotogravure printing presses, C-9 and C-11, including their control C-9/C-11 T-Ox.

(b) 326 IAC 1-5-2 (Emergency Reduction Plans)
The source has submitted an Emergency Reduction Plan (ERP) on December 10, 1996 with the Part 70 Permit Application. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

(c) 326 IAC 2-3 (Emission Offset)
Pursuant to 326 IAC 2-3 (Emission Offset), the proposed presses uncontrolled VOC emissions are at 4,997.85 tons per year, which are major under 326 IAC 2-3 (Emissions Offset). In conjunction with the operation of the thermal oxidizer C-9/C-11 T-Ox at an overall efficiency of 98.5%, and the source's requested limit in the VOC usage before control to 1,266 tons per year, will restrict the VOC emissions after control to 19 tons per year. This net emission increase (19 tons per year) is aggregated to all modifications the source had for the last five years. The source has had only one (1) modification for the last five (5) years, which is 2.97 tons of VOC per year of emissions (permitted under CP 089-3522, issued on August 11, 1995). Therefore, the total net emissions increase of 21.97 tons per year is not major, since it does not exceed the Emission Offset significant level of 25 tons per year.

(d) 326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of volatile organic compound (VOC). Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

(e) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC

5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of twenty percent (20%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

(f) 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)
The Permittee shall be in violation of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

State Rule Applicability - Individual Facilities

(a) 326 IAC 8-5-5 (Graphic Arts Operations)
The proposed two (2) packaging rotogravure printing presses, C-9 and C-11 are subject to the requirements of 326 IAC 8-5-5 (Graphic Arts Operations) and 326 IAC 8-1-9 through 326 IAC 8-1-12, because they are located at a source in Lake County that as of October 1, 1993 has potential volatile organic compound (VOC) emissions greater than twenty-five (25) tons per year.

Pursuant to 326 IAC 8-5-5 (Graphic Arts Operations), the Permittee shall operate an incineration system that oxidizes at least ninety percent (90%) of the nonmethane volatile organic compounds (volatile organic compounds measured as total combustible carbon) to carbon dioxide and water. Also, the Permittee shall attain an efficiency sufficient to achieve an overall control efficiency, in conjunction with the emission control system of sixty-five percent (65%). A compliance stack test shall be performed to document compliance with this requirement. The overall control efficiency of 98.5% required to operate presses C-9 and C-11, to stay below the Emissions Offset Significant level for VOC, satisfies the overall efficiency of 65% requirements under this rule.

(b) 326 IAC 8-1-9 (General Record Keeping Requirements)
Compliance with 40 CFR 63.820, Subpart KK shall satisfy the requirements of 326 IAC 8-1-9 (General Record Keeping Requirements). Pursuant to 326 IAC 8-1-9 (General Record Keeping Requirements), the Permittee shall comply with all record keeping and reporting requirements.

All records required by this rule or records necessary to determine compliance with 326 IAC 8-5-5 shall be accessible on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(c) 326 IAC 2-4-1.1 (New Sources Toxics Control)
This rule is applicable to the two (2) presses, because their HAPs emissions are at a major levels. The single HAP and the combined HAPs emissions are at 2,044.8 tons per year and 2,594.47 tons per year, respectively.

These presses are also subject to the NESHAP, 40 CFR 63, Subpart KK, and the requirements under this NESHAP, which is the operation of a thermal oxidizer, satisfies the requirements under 326 IAC 2-4-1.1.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination

Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The proposed two (2) packaging rotogravure printing presses, C-9 and C-11 have applicable compliance monitoring conditions as specified below:

   (a) The thermal oxidizer C-9/C-11 T-Ox shall operate at all times that the two (2) packaging rotogravure printing presses, C-9 and C-11 are operated. When operating, the thermal incinerator shall maintain a minimum operating temperature and air velocity in the capture hood determined in the compliance tests to maintain a minimum overall control of 98.5 % of the volatile organic compounds (VOC) generated.

   (b) A temperature monitoring device capable of continuously recording the temperature of the gas stream in the combustion zone of the incinerator shall be used. The temperature monitoring device shall have an accuracy of one percent (1%) of the temperature being measured in degrees Centigrade, or plus or minus five-tenths degree Centigrade, whichever is more accurate.

   These monitoring conditions are necessary because the thermal oxidizer for the packaging rotogravure printing presses, C-9 and C-11 must operate properly for these presses to stay minor for Emission Offset, 326 IAC 2-3. Compliance with this requirements also satisfies the requirements in 40 CFR 63.820, Subpart KK, which is 95% overall control and 326 IAC 8-5-5 (Graphic Arts Operations), which is 65% overall control.

Conclusion

The construction of the two (2) proposed rotogravure printing presses, C-9 and C-11 shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. **SSM 089-11272-00062.**

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Nai Avery Dennison MFD
Address City 650 West 67th Ave., Schererville, IN 46375
SSM No.: 089-11272
Plt ID: 089-00062
Reviewer: Aida De Guzman
Date: Sept. 30, 1999

Material	Usage (Pounds/hr)	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Press C-9														
Methyl Ethyl Ketone	95	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	14.16000	1.000	6.70	6.70	94.87	2276.93	415.54
Methyl Isobutyl ketone	458	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	68.32000	1.000	6.70	6.70	457.74	10985.86	2004.92
N-Butyl Alcohol	458	6.8	100.00%	0.0%	100.0%	0.0%	0.00%	67.82000	1.000	6.75	6.75	457.79	10986.84	2005.10
Ethyl Acetate	3	7.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.35000	1.000	7.51	7.51	2.63	63.08	11.51
Press C-9 Total Emiss												**1013.03**	**24312.72**	**4437.07**
Press C-11														
Methyl Ethyl Ketone	26.17	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	3.91000	1.000	6.70	6.70	26.20	628.73	114.74
	9.1	6.7	100.00%	0.0%	100.0%	0.0%	0.00%	1.36000	1.000	6.70	6.70	9.11	218.69	39.91
Toluene	85.62	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	11.89000	1.000	7.20	7.20	85.61	2054.59	374.96
Ethanol	4.43	6.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.65000	1.000	6.80	6.80	4.42	106.08	19.36
Ethyl Acetate	2.59	7.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.35000	1.000	7.51	7.51	2.63	63.08	11.51
Press C-11 Total Emis												**127.97**	**3071.17**	**560.48**

Combined Total Potential Emissions **Add worst case coating to all solvents** **1141.00** **27383.89** **4997.55**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
Company Nai Avery Dennison MFD
Address City 650 West 67th St., Ave., Schererville, IN 46375
Significant Source Modification: 089-11272-00062
Reviewer: Aida De Guzman
Date: March 28, 2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
11.2	98.1

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emissions in tons/yr	0.1	0.4	0.0	4.9	0.3	4.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission